

CLAIMS:

1. A thermal spray powder comprising:  
particles composed of molybdenum disulfide; and  
5 a coating layer provided on a surface of each of the  
particles, wherein the coating layer is composed of a metal  
that is softened or melted at a temperature lower than the  
heat decomposition temperature of the molybdenum disulfide.
- 10 2. The thermal spray powder according to claim 1, wherein  
the coating layer is provided on the entire surface of the  
each particle.
3. The thermal spray powder according to claim 1, wherein  
15 the content of the molybdenum disulfide in the thermal spray  
powder is 30% to 90% by weight, and the content of the metal  
in the thermal spray powder is 10% to 70% by weight.
4. The thermal spray powder according to claim 3, wherein  
20 the content of the molybdenum disulfide is 40% to 80% by  
weight, and the content of the metal is 20% to 60% by weight.
5. The thermal spray powder according to claim 1, wherein  
the metal is copper.
- 25 6. The thermal spray powder according to claim 5, wherein  
the content of the molybdenum disulfide in the thermal spray  
powder is 30% to 90% by weight, and the content of the copper  
in the thermal spray powder is 10% to 70% by weight.
- 30 7. The thermal spray powder according to claim 6, wherein  
the content of the molybdenum disulfide is 40% to 80% by  
weight, and the content of the copper is 20% to 60% by weight..
- 35 8. A process for producing a thermal spray powder, the

process comprising:

preparing particles composed of molybdenum disulfide; and  
providing a coating layer on a surface of each of the  
particles by an electroless plating method, wherein the  
5 coating layer is composed of a metal that is softened or  
melted at a temperature lower than the heat decomposition  
temperature of the molybdenum disulfide.

9. A process for producing a thermal spray powder, the  
10 process comprising:

preparing particles composed of molybdenum disulfide; and  
providing a coating layer composed of copper on a surface  
of each of the particles by an electroless plating method.

15 10. A method for thermal spraying a thermal spray powder, the  
method comprising:

preparing the thermal spray powder, wherein the thermal  
spray powder includes:

20 particles composed of molybdenum disulfide; and  
a coating layer provided on a surface of each of the  
particles, wherein the coating layer is composed of a  
metal that is softened or melted at a temperature lower  
than the heat decomposition temperature of the molybdenum  
disulfide; and

25 feeding the thermal spray powder to a flame in order to  
soften or melt the thermal spray powder, wherein a cylindrical  
air stream passes around the flame, and wherein the thermal  
spray powder fed to the flame passes through the inside of the  
air stream to be softened or melted in the inside of the air  
30 stream, and the powder is subsequently sprayed onto a  
substrate.